

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 1, 4, 9, 11, 14, 15 and 19 have been amended to overcome the objection to claim 1 and the rejections under 35 U.S.C. § 112, second paragraph and 103, and to place all elements in non-means-plus-function format. Claims 16 and 20 have been cancelled without prejudice or disclaimer. Support for the amendments to claim 1 can be found, for example, in Examples 5-8 of the present application. Support for the amendments to claim 4 can be found, for example, in Examples 1-3 of the present application. (References herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.) No new matter is considered to be included in these amendments.

Claims 4, 9, 11, 14-16, 19 and 20 stand rejected under 35 U.S.C. § 112, second paragraph.

It is respectfully submitted that these rejections should be withdrawn for at least the following reasons.

With respect to claim 4, the Office argues: "It is not clear what layer in the two-layer structure of the undercoat layer, e.g. the polyimide-containing layer, the thermosetting or thermoplastic resin layer, or both layers, comprises the titanium oxide." Claim 4 has been amended to recite the feature: "wherein the first layer and second layer contain titanium oxide, and the weight ratio of the polyimide resin and the titanium oxide in the first layer is in the range of 3:1-1:4." Accordingly, it is respectfully submitted that the rejection of claim 4 under 35

U.S.C. § 112, second paragraph should be withdrawn.

With respect to claims 9, 14-16, 19, and 20, the Office argues: "[claims 9, 14-16, 19 and 20] are indefinite in the phrase 'the electrophotographic apparatus of claim 1] for lack of unambiguous antecedent basis in claim 1, from which claims 9, 14-16, 19 and 20 depend."

Claims 9, 14-16, 19 and 20 have been amended to correct these antecedent problems.

Accordingly, it is respectfully submitted that the rejections of claims 9, 14-16, 19 and 20 should be withdrawn.

With respect to claim 11, the Office rejects claim 11 under 35 U.S.C. § 112, second paragraph for reasons similar to those reasons forming the basis of the rejections of claims 9, 14-16, 19 and 20, discussed above. Claim 11 has been amended to correct this antecedent problem. Accordingly, it is respectfully submitted that the 35 U.S.C. § 112, second paragraph rejection of claim 11 should be withdrawn.

With respect to claims 15 and 16, the Office argues: "Claims 15 and 16 are further indefinite in the phrase 'said exposing means uses a semiconductor laser' (emphasis added) because it is not clear how a device, i.e., the exposing means, uses another device, i.e., the semiconductor layer." Claim 15 has been amended to recite the feature: "said exposing unit includes a semiconductor laser" and claim 16 has been cancelled. Accordingly, it is respectfully submitted that the 35 U.S.C. § 112, second paragraph rejection of claims 15 and 16 should be withdrawn.

With respect to claim 19, the Office argues: "Claim 19 is further indefinite in the phrase 'further including at least one of a corona charging system, a charging roller and a charging brush' (emphasis added) because it is not clear whether the claim requires that all three of the named components be present in the apparatus or just one." Claim 19 has been amended to

recite the feature: “a charging unit selected from the group consisting further including at least one of a corona charging system, a charging roller and a charging brush.” Accordingly, it is respectfully submitted that the 35 U.S.C. § 112, second paragraph rejection of claim 19 should be withdrawn.

With respect to claim 20, the Office rejects claim 20 under 35 U.S.C. § 112, second paragraph for reasons similar to those reasons forming the basis of the rejection of claim 19, discussed above. Claim 20 has been cancelled.

Claims 1, 4, 9, 11, 14-16, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2004/0033428 A1 (Niimi '428), as evidenced by Kirk-Othmer, Encyclopedia of Chemical Technology, fourth edition, Vol. 15, page 21, lines 12-19 (Kirk-Othmer) and the ACS File Registry RN 26201-32-1, combined with Japanese Patent 2002-229236 (JP '236).

It is respectfully submitted that the rejections should be withdrawn for at least the following reasons.

Claim 1 has been amended to recite the feature: “the undercoat layer has a two-layer structure comprising a first layer containing the a polyimide resin and a second layer containing a thermosetting resin or a thermoplastic resin provided on the first layer, and the first layer has a thickness of 5.0-50.0 μ m.” Support for the amendment to claim 1 can be found, for example, in Examples 5-8 of the present application.

On the other hand, Niimi '428 states that the thickness of the undercoat layer is preferably 0-5 μ m. The Office acknowledges this preferred thickness at page 9 of the Office Action. However, since claim 1 has now been amended to recite that the “the first layer [of the undercoat layer] has a thickness of 5.0-50.0 μ m,” and since the undercoat layer additionally

includes a second layer containing a thermosetting resin or a thermoplastic resin provided on the first layer and having a thickness greater than zero, the overall thickness of the undercoat layer recited by claim 1 falls outside of the preferred range taught by Niimi '428.

In addition, JP '236 states that an undercoat layer may have a thickness of 0.01-20 μm , preferably 0.1-10 μm . However, JP '236 does not teach or suggest any preferred thickness ranges for the "layer which consists of a polyimide precursor and polyimide resin" (para. [0025]). JP '236 is completely silent as to the thickness of the "layer which consists of a polyimide precursor and polyimide resin." Therefore, JP '236 does not teach or suggest this recited feature of claim 1 either.

Accordingly, the cited references, alone or in combination, fail to teach or suggest at least the feature of "the first layer has a thickness of 5.0-50.0 μm " as recited by claim 1. "All the words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); MPEP 2143.03. Since none of the cited references, alone or in combination, teach or suggest all of the recited features of claim 1, it is respectfully submitted that the rejection of claim 1 should be withdrawn for at least these reasons.

Claims 4, 9, 11, 14-16, 19, and 20 depend on claim 1. Accordingly, it is respectfully submitted that the rejections of claims 4, 9, 11, 14-16, 19 and 20 under 35 U.S.C. § 103(a) should be withdrawn for at least the same reasons that the rejection of claim 1 should be withdrawn.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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